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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,275	11/14/2003	Frederic Remi	4590-233	9215
33308 7590 07/16/2007 LOWE HAUPTMAN & BERNER, LLP 1700 DIAGONAL ROAD, SUITE 300 ALEXANDRIA, VA 22314			EXAMINER LEVITAN, DMITRY	
			ART UNIT 2616	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/712,275

Applicant(s)

REMI ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

*Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as a single means claim.

A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

Claims 7-9, 14 and 15 are rejected as the claims depending on claim 6.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 6 and 12 limitations, directed to "capturing a data stream", are unclear, because it is not understood what capturing a data stream means in the context of the claims: saving a

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data stream in a memory device for analysis, as no memory for saving the stream is mentioned in the disclosure, or monitoring real-time data stream without saving the data stream.

Claim 1 recites the limitation "the totality of the stream" in line 5 and "the protocol" in line 6. There is insufficient antecedent basis for these limitations in the claim.

Claim 2 recites the limitation "the captured packet" in line 2 and "the resources" in line 8. There is insufficient antecedent basis for these limitations in the claim.

Claim 3 recites the limitation "the level considered" in line 2 and "the rule" in line 6. There is insufficient antecedent basis for these limitations in the claim.

Claim 6 recites the limitation "the device" in line 1, "the analysis" in line 1 and "the method" in line 3. There is insufficient antecedent basis for these limitations in the claim.

Claim 12 recites the limitation "the analysis" in line 1, "the method" in line 3 and "the totality of the stream" in line 5. There is insufficient antecedent basis for these limitations in the claim.

Claims 1, 6 and 12 limitations directed to "the totality of the stream" are unclear, because it is not understood if "the totality of the stream" means all the packets of the stream or it means something else.

Claims 4, 9, 10, 11 and 15 limitations directed to "means of tests of statistical or protocol analysis" are unclear as written.

Claim 12 limitations directed to "capturing a means for capturing a datastream" are unclear as written.

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Claim 12 limitations directed to “reiterating the step of analysis for a higher layer” are unclear, because the claim 12 limitations are directed to means and the means of the claim comprise no steps.

These are only the examples of the claims clarity problems. All the claims should be revised to clarify the subject matter which applicant regards as the invention.

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 6 and 12 are rejected (as best understood) under 35 U.S.C. 102(e) as being anticipated by Dietz (US 6,651,099).

5. Regarding claims 1, 6 and 12, Dietz teaches a method and a device for analyzing of data streams in a communications network modeled by several layers (analyzer/monitor 108, shown on Fig. 1, 3 and 15, to analyze network connection flows utilizing multiple layers/levels 3:23-4:17), comprising the following steps:

capturing a datastream (examining all packets at the analyzer 108 connection point 121, as shown on Fig. 1 and 8:57-9:7);

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for a given network layer, analyzing the totality of the stream in order to determine the protocol or protocols present (for a layer, selected from a layer selections 338, as shown on Fig. 3 and 11:42-12:36, analyzing the packets stream to determine the packets protocol, according to protocol specific information 11:59-12:11);

producing different streams corresponding to at least one protocol present (utilizing unique flow signature to create different flows 13:9-29, wherein the flows are classified into known or new 13:54-14:48); and

reiterating said analyzing step for a higher layer if any (analyzing packets according higher layers, as described on 9:28-57, to determine the flow layers and applications 12:23-34).

In addition, regarding claims 6 and 12, Dietz teaches implementation of the network monitor, as described above, based on a processor 1504, utilizing capturing means as packet acquisition device 1502, analyzing means as monitor 300 and producing means as monitor 300 to produce a database of flows 324, as shown on Fig. 15 and 28:37-55.

6. Regarding claims 3, 8 and 14, Dietz teaches retrieving a list of the protocols liable to appear at the level considered (retrieving pattern recognition structure/signature from data base 336, as shown on Fig. 3 and 12:12-22);

carrying out a frame-by-frame analysis of the stream in making a frame sequentially confront all the protocol signatures envisaged so long as the frame is not associated with a signature (parser 301 performing the packet comparison with all available protocol signatures to identify the protocol 11:59-12:22);

retrieving the rule by packet of each frame recognized (retrieving/building the flow key 312, as shown on Fig. 3 and 13:20-30);

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classifying the frames as a function of the rules and positioning them in distinct streams (classifying and separating the packets into flows, as shown on Fig. 3 and 13:54-14:57) and; carrying out a total analysis of the distinct streams in using the recognized protocol or protocols; associating the stream rule coming from the analysis (analyzing the packets flows, identified by the flow signatures, in real time for each protocol up to the application level, as disclosed on 16:1-20).

In addition, regarding claim 14, Dietz teaches means for performing the operations described above, as monitor 300, shown on Fig. 15.

7. Regarding claims 4, 9, 11 and 15, Dietz teaches performing analysis of all packets utilizing statistics 4:64-5:14:

8. Regarding claim 5, Dietz teaches analyzing the network utilizing TCP/IP protocol, as disclosed on 5:55-67.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2, 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dietz. Dietz substantially teaches the limitations of claims 2, 7 and 13:

1) analyzing the captured packet (analyzing packets at parser 301, as shown on Fig. 3 and 12:12-24):

1.b) if the packet is recognized, eliminating the packet from the captured stream, searching for an existing stream in order to insert the packet, and if there is no existing stream, generating a new stream (recognizing the packet a part of the existing flow and saving the packet at flow data base 324, or creating a new flow and saving it at the database 324, shown on Fig. 3 and 13:14-14:55, wherein the monitor removes the packet which has been analyzed from the analyzed stream as the monitor moves to the next packet),

2) analyzing the streams generated at the step 1) (analyzing flow 14:63-66).

Dietz does not teach passing to the next packet, if the packet is not recognized, and releasing the system resources at the end of the operation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add if the packet is not recognized, passing to the next packet and releasing the system resources to the system of Dietz to improve the system operation in noisy environment to proceed with the flow analysis, as one of the packets is not recognized, and to release the protocol related information/signature at the end of the stream analysis, to make the system ready for next stream analysis.

11. Regarding claim 10, Dietz teaches performing analysis of all packets utilizing statistics 4:64-5:14.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Handwritten signature of Dmitry Levitan, consisting of the initials 'DL' followed by a stylized signature.

Dmitry Levitan  
Primary Examiner  
Art Unit 2616

**DMITRY LEVITAN  
PRIMARY EXAMINER**